

# **Exhibit A**

# Ethyl lactate

From Wikipedia, the free encyclopedia

**Ethyl lactate**, also known as lactic acid ethyl ester, is a monobasic ester formed from lactic acid and ethanol, commonly used as a solvent. This compound is considered biodegradable and can be used as a water-rinsable degreaser. Ethyl lactate is found naturally in small quantities in a wide variety of foods including wine, chicken, and various fruits. The odor of ethyl lactate is mild, buttery, creamy, with hints of fruit and coconut.

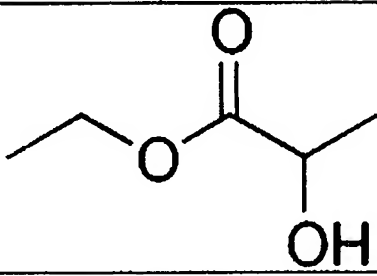
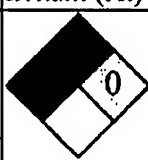
Due to its relatively low toxicity, ethyl lactate is used commonly in pharmaceutical preparations, food additives, and fragrances. Also used as solvent for nitrocellulose, cellulose acetate, and cellulose ethers.

## External links

- Links to external chemical sources

Retrieved from  
"http://en.wikipedia.org/wiki/Ethyl\_lactate"

Categories: Solvents | Carboxylate esters | Alcohols

Ethyl lactate	
	
General	
Systematic name	Ethyl 2-hydroxypropanoate
Other names	Ethyl lactate Lactic acid ethyl ester 2-Hydroxypropanoic acid ethyl ester Actylol Acytol
Molecular formula	C <sub>5</sub> H <sub>10</sub> O <sub>3</sub>
SMILES	O=C(OCC)C(O)C
Molar mass	118.13 g/mol
Appearance	Clear to slightly yellow liquid
CAS number	[97-64-3], [687-47-8] (L-form)
Properties	
Density and phase	1.03g/cm <sup>3</sup> , liquid
Solubility in water	Miscible
Solubility in ethanol, and most alcohols	Miscible
Melting point	−26 °C
Boiling point	151-155 °C
Hazards	
MSDS	External MSDS
Main hazards	Irritant (Xi)
NFPA 704	
R-phrases	R10, R37, R41
S-phrases	(S2), S24, S26, S39
Flash point	46 °C
RTECS number	OD5075000
Related compounds	
Related compounds	Lactic acid
Except where noted otherwise, data are given for materials in their standard state (at 25 °C, 100 kPa)	